MULTIEYE®-NET Software

Network Videorecorder- and Management Software

Future proof, multi-functional, modular and scalable, with MULTIEYE-NET software you will get a highly professional PC- and server-based video surveillance software (NVR = Network Video Recorder) with 2 – 32 IP video channels.

Regardless of the number of channels MULTIEYE-NET offers among other features live-monitoring, recording, playback and remote surveillance. The software supports more than 600 of the most popular IP-cameras and video servers from 80+ different manufacturers and enables fast and easy integration of cameras by automatic detection of the camera IP addresses on the network and maximum flexibility.

The activation of additional IP video channels is very flexible with the IP-1 or IP-4 licenses (extending to 1 or 4 channels) up to 32 channels per recorder.

In combination with the MULTIEYE VideoCenter III software or monitoring stations projects with 1000+ cameras can be realized.

MULTIEYE-NET is an innovative and multifunctional software which, by its modular design, can be always modernized and adjusted to the customer-specific requirements..

The MULTIEYE software is based on technologies developed by artec technologies AG:

- The patented CVoD process makes event-related, time-shifted playback witin networks.
- With the DirectStream technology, IP video data is recorded and processed directly. As a result, recording rates up to 960 fps and image-data processing rates of up to 2.500 megapixels/second* per recorder/server can be achieved.
- The MD indexing procedure enables ultrafast smart video analysis of recorded data, via networks as well.
- With the remote bandwidth throttle optimisation, video data is optimized in such a way that even. megapixel cameras can be monitored via DSL lines, yet zoomed-in areas retain their maximum resolution when transmitted.

Included in delivery of the MULTIEYE-NET is the software on a USB stick (user's manual and marketing material etc.), Quick Installation Guide and a USB-license dongle.

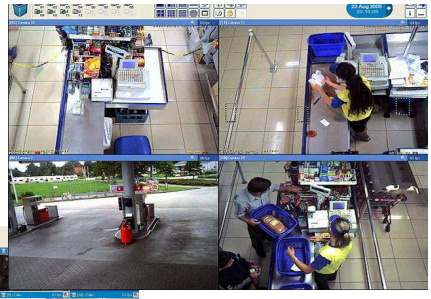
The MULTIEYE-NET software is the basic software of all MULTIEYE products. All functionalities are identical for NVR/HYBRID recorders and for the DVR-Kits.

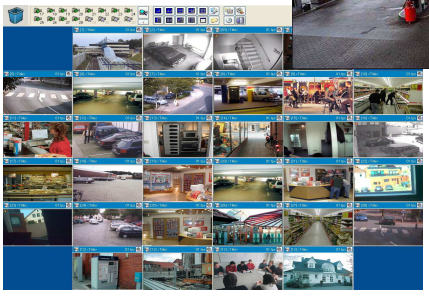
Software Features

Operation

- Express installation & easy operation through Plug & Play

  Via drag & drop with the mouse MULTIEYE-NET Software is easily operated. The user interface is clearly structured and user-friendly. Individual settings (e.g. personalized multiscreens) can be saved by the individual users.





V. 09102012 ©2012 artec technologies AG Product specifications and features are subject to change without notice .
artec technologies AG | Mühlenstraße 15-18 | D-49356 Diepholz Germany| www.artec.de | office@artec.de | T. +49 5441 5995-0 | F. +49 5441-5995-70

▶ Clear license concept

Why complicate matters unnecessarily? For MULTIEYE-NET there is always an expandable version at an excellent price/performance ratio. The software may be expanded manually or via the license server. All licenses are assigned to a specific USB dongle; no internet connection is required for licensing.

▶ Expandability

MULTIEYE is set up modularly. Numerous software and hardware components are available for customized system solutions, such as video expansion licenses, software modules like AutoBackup, Shell, VideoCenter III, DataLog, NetworkPlayer, ANPR number plate recognition, etc. With the video cards (see DVR-Kits), MULTIEYE-NET can easily be turned into a hybrid video surveillance system.

.

▶ UVV-cash point compatble

MULTIEYE-NET software is "UVV-Kassen" compliant with their video surveillance requirements for banking houses, i.e. that MULTIEYE-NET software can be used for video surveillance systems in banking and financial institutions. Special features such as pre- and post-alarm as well as suspect-alarm recording are also available to the end user

▶ Quadplex© operation

features the simultaneous operation of

- Live display
- Recording
- Playback and evaluation
- Remote surveillance

▶ Support of common IP cameras and video servers

MULTIEYE-NET supports IP cameras and video servers by more than 80 manufacturers like

4XEM ● ACTi ● Advantech ● Allnet ● A-MTK● Apro ● artec technologies ● ArecontVision ● Asoni ● Avigilon ● Aviosys ● AXIS ● Basler ● Bosch ● Bosslan ● Brickom ● Canon ● Cellvision ● Conceptronic ● Connec Tec ● Convision ● DigiLan ● Digitus ● DigiLan ● D-Link ● Elbex ● Eltis ● ELMO ● ENEO ● Everfocus ● Eyetelligent ● For-A ● FlexWatch ● Grand ● GeoVision ● Grandtec ● Hawking ● HikVision ● Hunt ● Intellinet ● IOImage ● IQEye ● IPX ● JVC ● Leadtek ● LevelOne ● Lindy ● Lilin ● Linksys ● Linudix ● Lumenera ● Marshall ● Misumi ● Mobotix ● Moxa ● Panasonic ● Pelco ● Pixord ● Planet ● PTAV ● RIVA ● Samsung ● Santec ● Siemens ● Sony ● Sanyo ● Stardot ● SMC ● SparkLan ● Surveyor ● Sweex ● Toshiba ● TRC ● Truen ● VCS ● Videotec ● Visicom ● Vivotec ● Xannet ● Y-Cam ● Yoko Zavio ● und andere mehr.
Weitere Details siehe Netzwerkkamera Kompatibilitäts Liste.

▶ ONVIV Support

▶ High image data processing rate MPixel/s

With the DirectStream technology IP-video data are directly processed and recorded; thus recording rates up to 960fps and image data processing rates of up to 2.500MPixel/s* can be processed per server.

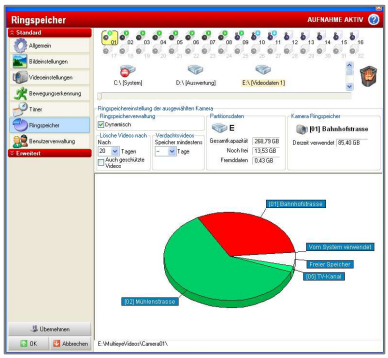
V. 09102012 ©2012 artec technologies AG Product specifications and features are subject to change without notice .
artec technologies AG | Mühlenstraße 15-18 | D-49356 Diepholz Germany| www.artec.de | office@artec.de | T. +49 5441 5995-0 | F. +49 5441-5995-70

Functionality

- Motion Detection

All connected IP cameras and video servers are detected by a camera independent Motion Detection matrix with 2304 individual fields. Through this high matrix solution, specific object-related surveillance fields can be marked.

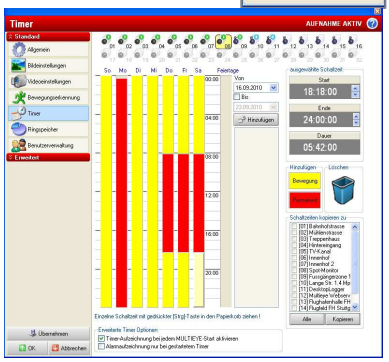
- Multi functional storage management



In MULTIEYE-NET you can choose between static and dynamic storage management. Dynamic recording arranges the video data automatically on the hard disk(s):in the static mode, an individual storage capacity can be set for every video source. MULTIEYE-NET supports the operation with up to 24 hard disks/partitions or network drives and can manage up to 24TB per server.

- PTZ control

Via software pop-up, joystick or directly in live display incl. Direct-Move function. Digital zoom during live display and replay. Advanced PTC control.

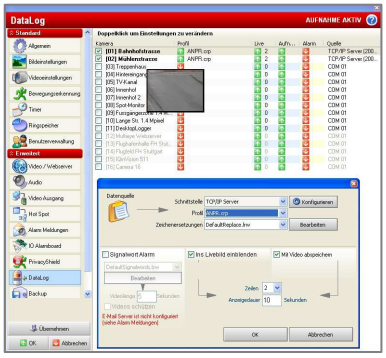


- Event-controlled recording

Apart from the permanent recording or timer operations several or all video channels can be recorded through event activation e.g. via motion detection, contact controlled via IO- server and/or IP cameras or via signal words though the DataLog and SensorLog interfaces (COM, TCP, UDP).

V. 09102012 ©2012 artec technologies AG Product specifications and features are subject to change without notice .
artec technologies AG | Mühlenstraße 15-18 | D-49356 Diepholz Germany| www.artec.de | office@artec.de | T. +49 5441 5995-0 | F. +49 5441-5995-70

Data interface



MULTIEYE-NET comes with a flexible data interface. With the DataLog module data from cash registers (POS), barcode scanners, ATMs, access controllers or number plate recognition systems via COM, TCP or UDP can be captured, processed, displayed, stored and analysed by full-text search. External video sensors can be integrated with the SensorLog module.

360°-surveillance/ImmerVision

MULTIEYE-NET supports panamorphic lenses by the company Immervision. When linked to a megapixel camera a complete 360° area can be monitored – both live and during replay. Via digital PTZ it is possible to zoom and operate in full screen, in the 2 x 180° display or in the quad display.

Compatibility

MULTIEYE-NET offers a variety of interfaces and is compatible with:

- Video sensors: via:sys, IOimage via MULTIEYE SenorLog alarm center
- Video management system: EBÜS/Accelence
- Facility management: WinGuard
- Access control: Delta Controls, Bewator 2010, Rosslare
- Cash register appliances: Casio, Huth, Vectron etc via protocol converter box NPC
- Number plate recognition: via MULTIEYE ANPR-Traffic or Gate

Display

Programmable Multiscreens with Hotspot monitor

Eight programmable multiscreens are available for the display of between 1 and 32 cameras. Specific multiscreens can be stored by individual users The hotspot monitor can be configured individually and embedded or disembedded from the multiscreen and displayed on an extra monitor. With the optional VideoCenter III software or station, 1000+ cameras can be monitored.

Digital Megapixel Zooming

To use the advantages of megapixel cameras with reduced bandwidth MULTIEYE offers the "hotzone mega pixel zooming" function. The user can mark a detail in the video image via mouse click. The marked area is then transmitted as full-screen picture in max. image quality

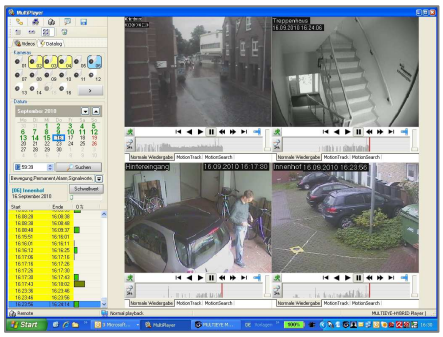
V. 09102012 ©2012 artec technologies AG Product specifications and features are subject to change without notice .
artec technologies AG | Mühlenstraße 15-18 | D-49356 Diepholz Germany| www.artec.de | office@artec.de | T. +49 5441 5995-0 | F. +49 5441-5995-70

Multi monitor operation

MULTIEYE-NET supports the simultaneous operation of up to four desktop monitors. Multiscreens, players, live images and hotspot windows can be individually arranged on the monitors

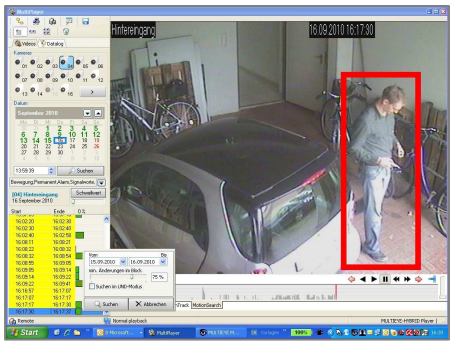
Replay

Replay can be carried out by the local MultiPlayer or the NetworkPlayer. The players are visually and functionally identical and differ only in minor characteristics. They offer a four-fold display with motion histogram, video analysis with MotionSearch and MotionTracker, export function for pictures and videos, and many other features. The replay can be operated and controlled via key combinations or jog shuttle



Efficient and smart evaluation

For ultra-fast evaluation of video data, the player offers highly efficient video analysis. Via the MD indexing system, even data quantities of several terabytes can be analysed within seconds. With the MotionSearch function, event areas can be defined so that changes in the image can be displayed in an variable size. Further analysis can be carried out with MotionTrack via histogram timelines.



Remote surveillance and configuration

Remote surveillance can be carried out via LAN, WAN, Internet or telephone connection, either as live display or as replay. With MULTIEYE-NET, the customers can choose between several license-free possibilities of remote monitoring:

- LiveViewer' with popup alarm display can be freely positioned on one or more desktop monitors.
- Multiscreen for remote display and remote configuration of recorders.
- Standard browser without ActiveX or Java add-ons (PDA/mobile phone compatible)
- NetworkPlayer for simultaneous playback, video analysis, and snapshots/video export – one license included in software.
- VideoCenter II/III is an easy-to-operate multifunctional site-map based video management solution for monitoring up to 32 MULTIEYE recorders simultaneously. (optionally available)

IPhone, PDA & tablet PC support

Live cameras and recordings can be monitored via IPones, IPads, PDAs and tablet PCs without installing additional software.

V. 09102012 ©2012 artec technologies AG Product specifications and features are subject to change without notice .
artec technologies AG | Mühlenstraße 15-18 | D-49356 Diepholz Germany| www.artec.de | office@artec.de | T. +49 5441 5995-0 | F. +49 5441-5995-70

Safety

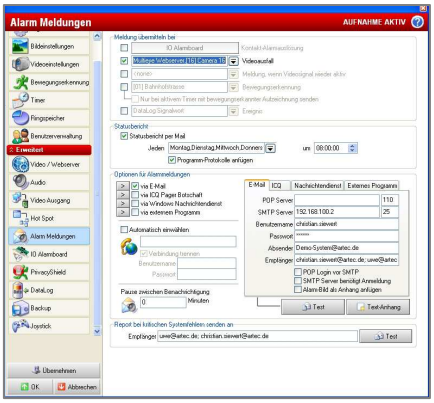
▶ Highest reliability

MULTIEYE offers an IP-video-loss alarm. It also comes with watchdog functions for automatic software and hardware start, crash recovery for trouble-free resumption of operation after a blackout, MULTIEYE shell for exclusive MULTIEYE operation with access exclusion from the Windows OS level. With the S.M.A.R.T function, hard disks are supervised, disk drive errors recognised, and signalized. Via the alarm messenger system, errors can be sent as critical S.M.A.R.T parameters.

▶ System Restorer

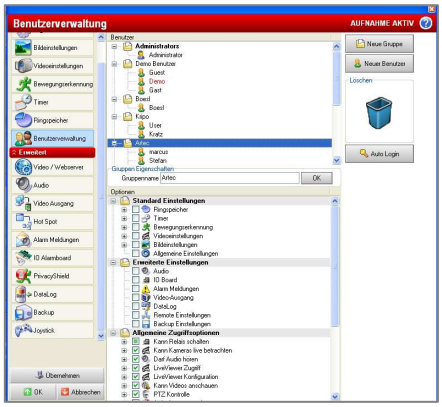
The SystemRestorer stores the entire MULTIEYE-NET configuration (incl. user administration) and can restore all of those settings. Additionally, reference snapshots of every connected camera can be stored in order to compare these with camera positions in case of service being necessary.

▶ Alarm and routine messenger



Alarm messaging upon motion, alarm contact, or failure is possible via E-Mail, SMS, Windows messenger service, and other external (third party) programs - with or without alarm pictures. At pre-defined times, the integrated routine messenger automatically transmits E-Mails with status reports and event logs. Ideal for remote control of the system's functionality.

▶ User administration



MULTIEYE-NET offers a group-oriented user administration. User and user groups can be defined down to the camera level with different authorization. An integrated "four eyes" principle eliminates abuse.

▶ Authentication through watermark

Videos or snaphots are protected with an invisible, digital watermarks. With the MULTIEYE validator program (included in shipment of MULTIEYE-NET Software) videos and snap shots can be checked for their authenticity.

V. 09102012 ©2012 artec technologies AG Product specifications and features are subject to change without notice .
artec technologies AG | Mühlenstraße 15-18 | D-49356 Diepholz Germany| www.artec.de | office@artec.de | T. +49 5441 5995-0 | F. +49 5441-5995-70

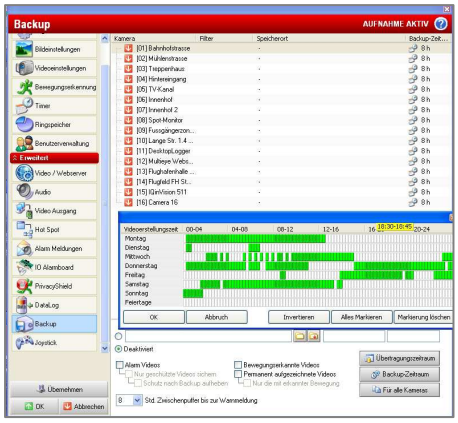
▶ Live Udates

Software updates are available via internet from the MULTIEYE update server or can optionally be delivered on CD in combination with a service package.

Additional modules

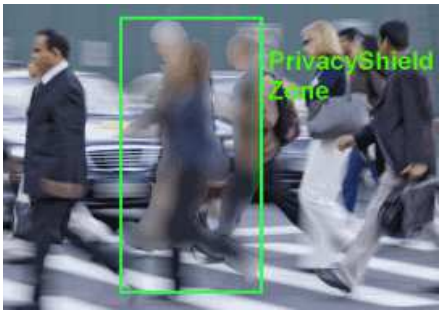
▶ Software modules

Numerous software and hardware components are available for customized system solutions. These comprise licenses, software modules, etc. such as:
AutoBackup
Shell,
VideoCenterIII
DataLog,
NetworkPlayer
PrivacyShield
ANPR numer plate recognition
and
video cards for extending to HYBRID recorder



▶ Privacy protected video surveillance

MULTIEYE-NET with the optional MULTIEYE PrivacyShield module blurs the images of all moving persons and objects in live display so that their anonymity is assured. Despite this blurring, though, actions are still identifiable. The protection can be enhanced by masking out certain image areas with the software. The recorded videos have multiple levels of protection against unauthorized access. The privacy-protected video surveillance package is rounded off by automated deletion of data and a special software component for protection from intrusion by users in the network.



▶ SDK

The MULTIEYE-SDK (Software Development Kit) offers software developers the possibility to integrate third-party systems for control, transmitting live streams, remote enquiry of recordings, alarm and user management, and asynchronous event messaging from and to MULTIEYE systems. The SDK includes a collection of commands which are embedded in a DLL.

▶ OEM, customizing and multiple languages

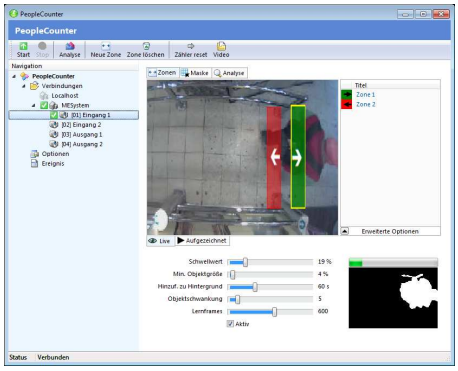
MULTIEYE-NET can easily be adapted to a customer's CI. It is also possible to produce a customized OEM version. In the standard version, MULTIEYE-NET offers more than 8 languages. New languages and characters can easily be added via a special context-oriented editor program.

V. 09102012 ©2012 artec technologies AG Product specifications and features are subject to change without notice .
artec technologies AG | Mühlenstraße 15-18 | D-49356 Diepholz Germany| www.artec.de | office@artec.de | T. +49 5441 5995-0 | F. +49 5441-5995-70

Software Release 2.4

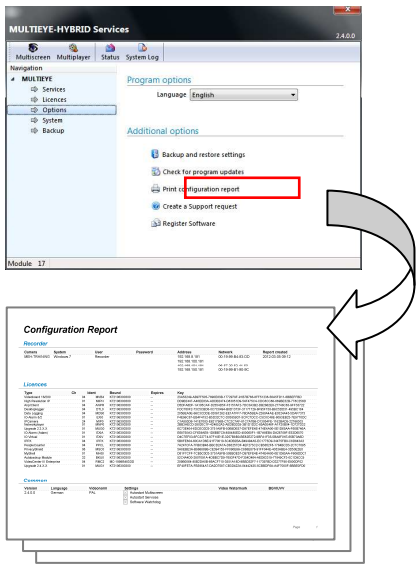
The software user interface of MULTIEYE-NET Version 2.4 has been optically up-dated. Further, numerous functions beneficial to the user and installer such as a configuration report generator have been integrated. After completion of configuration and maintenance, this creates a comprehensive report of the system status.

Preparatory to this new release, the VideoCenter II (VCII) Management Software has also been revised, and the VC III version will also be made available at the same time as the release of the MULTIEYE-NET Version 2.4. Included among the new software modules are e.g. the MULTIEYE PeopleCounter.



MULTIEYE PeopleCounter

MULTIEYE PrivacyShield „freely variable configuration of pixeling and color"



New diagnosis and system tool

New features and modules

- Support of the MULTIEYE PeopleCounter module
- iPhone/iPad App
- ONVIF camera support
- Configuration report
- Improved recognition of network cameras
- Improved image quality in the web interface
- VCA video analysis integrated through MULTIEYE DataLog alarm-string recognition
- Proportional PTZ control optimized
- Support of the IO contacts of Basler cameras
- Automatic deletion of backups according to time and/or storage-memory needs
- Access to preset positions via IO contacts
- Integration of the Rimage CD/DVD/BD long-term archiving system into "automatic backup."
- PrivacyShield: freely variable configuration of pixeling and color
- PrivacyShield: storable presets for standard settings
- Information about HDD temperature in the recorder status mail
- Cluster size checked automatically on unused HDDs
- Integration of the new video grabber boards 16400EX and 8200H (H.264)
- Control of the I-frame rate, e.g. of Axis cameras
- Automatic activation of joystick PTZ control upon clicking on a camera in the multiscreen
- Activation of the Windows autologin via the MULTIEYE shell module
- New diagnosis and system tool
- Display of the USB dongle's serial number in VideoCenter II and in the MULTIEYE shell module
- Automatic search and display of all MULTIEYE servers upon remote access

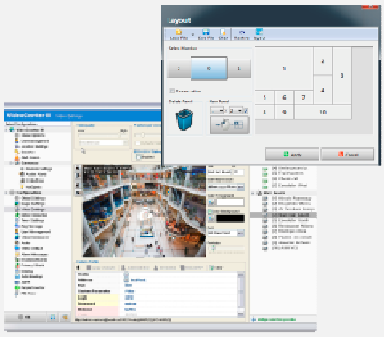
New or adapted camera profiles

In addition to adapted camera profiles, numerous new models from Axis, CNB, Lupus, and Riva are supported.

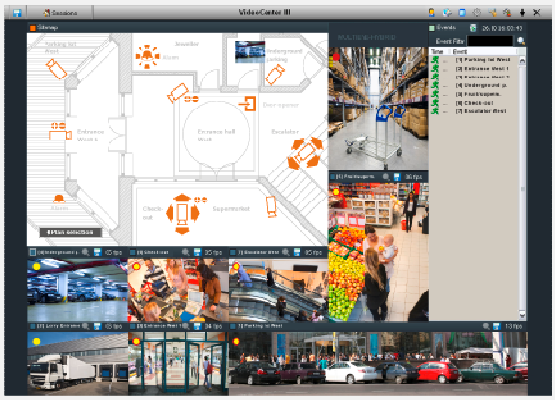
- **Axis:** M1103, M1104, M1113, M3113, M3114, M3203, M5014, P1343, P3304, P3343, P5512, P5532
- **CNB:** ISMC1063P, IVC5055VR
- **Lupus:** LE140, LE930, LE980
- **RIVA:** RC100, RC200, RC1100, RC3100, RC3500, RC3510, RC4100, RC4500, RC5500, RC6500, RC7500, RE1000

V. 09102012 ©2012 artec technologies AG Product specifications and features are subject to change without notice .
artec technologies AG | Mühlenstraße 15-18 | D-49356 Diepholz Germany| www.artec.de | office@artec.de | T. +49 5441 5995-0 | F. +49 5441-5995-70

VC III Video Management Software (optional)



MULTIEYE VideoCenter III



The user interface has been optically enhanced. In the future, the VC III will be available in two versions: **Business and Professional**

New Features	Business	Professional
Number of the ME systems manageable	**4**	**32**
Global configuration of connected ME recorders	**-**	**+**
Automatic recognition of all ME recorders in the network	**+**	**+**
Separate storage list for confirmed alarm messages	**-**	**+**
Direct playback from selected cameras in the MultiPlayer	**+**	**+**
Scaleable SiteMap editor with two modes	**-**	**+**
Axis KeyPad and JogShuttle supported	**+**	**+**
Camera windows in 16:9 format	**+**	**+**
Freely scaleable camera windows	**+**	**+**
Users can be switched to "invisible" status	**-**	**+**
Snapshot live and player images can be edited	**+**	**+**
Support of third-party recorders (option)	**+**	**+**
Free telephone installation support	**-**	**3h**

The VCIII's multiscreen is identical to the construction of MULTIEYE. As a result, additional functions can now be configured:

- ONVIF support
- Ring storage for the backup module
- New camera finder and revised dialog
- Access to camera presets following a contact alarm
- Load/save of PrivacyShield settings
- Autobackup via IO on/off switching

V. 09102012 ©2012 artec technologies AG Product specifications and features are subject to change without notice .
artec technologies AG | Mühlenstraße 15-18 | D-49356 Diepholz Germany| www.artec.de | office@artec.de | T. +49 5441 5995-0 | F. +49 5441-5995-70

Scope of delivery

810159 2/32 channel MULTIEYE-NET Starter, Network Video Recorder and Management Software, Vers.2.4 expandable up to 32 channels by IP-1/IP-4.

810160 4/32 channel MULTIEYE-NET, Network Video Recorder and Management Software, Vers. 2.4 expandable up to 32 channels through IP-1/IP-4.

810158 4/32 channel MULTIEYE-NET, Network Video Recorder and Management Software, Vers. 2.4 incl. IP-HD module, expandable to 32 channels through IP-1/IP-4.

810165 8/32 channel MULTIEYE-NET, Network Video Recorder and Management Software, Vers. 2.4 incl. IP-HD module, expandable up to 32 channels through IP-1/IP-4.

810167 16/32 channel MULTIEYE-NET, Network Video Recorder and Management Software, Vers.2.4 incl. IP-HD module, expandable up to 32 channels through IP-1/IP-4.

810169 24/32 channel MULTIEYE-NET, Network Video Recorder and Management Software, Vers. 2.4 incl. IP-HD module, expandable up to 32 channels through IP-1/IP-4.

810168 32/32 channel MULTIEYE-NET, Network Video Recorder and Management Software, Vers. 2.4 incl. IP-HD module.

810162 IP-1 license for activation 1 additional IP-video input.

810161 IP-4 license for activation of/up to 4 additional IP-video inputs.

810163 IP-HD module for use of multi-megapixel IP cameras with a resolution larger than 1.3 megapixels, server license for activation of all IP-video recorder inputs

810151 NetworkPlayer, software and server license for playback and storage of video sequences and still images over network,

812102 Software upgrade for MULTIEYE-Hybrid/NET recorders and systems on MULTIEYE-NET version 2.4.x.x

NG2004 Service Package for MULTIEYE

Technical data MULTIEYE-NET

IP-video channels	Up to 32 channels. Available as 2-, 4- , 8-, 16-, 24- and 32-channel versions. With the IP-1/IP-4 licenses, the software may be enhanced by 1 or 4 additional IP video inputs respectively
IP-cameras and video servers	Support of common network cameras and video servers from presently more than 80 manufacturers
Image resolution IP-video	Standard up to 1.3 MPixel, expandable up to 20 MPixel per IP-video channel with the IP-HD license
Recording frame rate/ Image data processing rate	Up to 96 fps and up to 2.500 Mpixel/s, depending on CPU, image resolution, video codec, compression, recoding frame rate and remote access.
Video codecs	JPEG, MJPEG, MPEG-4 and H.264
Alarm inputs, outputs	Up to 96 alarm inputs and 96 relay outputs through EX-IO Server or per IOs supported by IP-cameras/video servers
PTZ control	Via pop up menu, keyboard and/or tri axial joystick
Live monitoring	Via 8 programmable multiscreens with hotspot monitor functions
Text overlay	Time, date, free text to 50 characters, variable positioning, font type, size and coloar selectable
Text imprint	With up to 10 lines @ 40 characters, for POS, ANPR etc.,
Motion detection	Matrix with up to 2034 individual fields, selection of unlimited no. of areas
Weekly timer	Adjustable per channel: continuous, motion detection, no recording, holiday function
Playback	1 – 4 fold display, simultaneous playback, Fast/Step forward/backward, support of keyboard shortcuts and jog shuttle
Search criteria, smart evaluation	Date, time, motion detection, MotionTrack, MotionSearch (image area search), motion histogram
IP-Video loss detection	By acustical and optical notification
Video export	In AVI format, single or multiple videos with internal player for external playback
Snap shots	In BMP or JPEG format
Authentification	Digital certification through invisible watermark in images and video files
Ring storage management	Dynamic or static recording, up to 24 hard drives, NAS/SAN
Pre, post, suspicion recording	Adjustable from 5 to 900 seconds for each camera, according to „BGV Kassen „
Password protection	Multilevel password protection, freely defi nable user groups with individual rights, also true "four-eye principle"
Remote monitoring	Via browser without plugins, LiveViewer with popup display and optical and/or audio alarm, network player for network-based analysis and playback, VideoCenter II optional
Remote configuartion	Via Remote Multiscreen (MRC)
Web- and video server	Integrated
Function reliability	Software watchdog, crash recovery, network loss detection, S.M.A.R.T control, system restorer
Alarm notification	Per email, SMS, ICQ, Windows News Service, external programs, with or without alarm snapshot
Routine notification	Automatic status reports of the recorder functions, programmable with/without log files, time and day of the week
Log book	yes
Software Update	Per live updater via the Internet or on a CD-ROM within the context of a service contract
Menu languages	D, DK, E, F, GB, H, I, NL, P, RO, S, SK, TR, others added continually
Compatibility	The software is compatible with all other products in the MULTIEYE family
System recommendation	Please note document: system requirements
Scope of delivery	Software on USB stick, quick guide and USB-dongle

* MPixel/second represents a value for image data processing speeds. The values stated refer to the processing and encoding of image data in of H.264 streams with 2 I-frames, min 3 HDD's and Gbit LAN. Other values depending on type of codec MPEG-4, MJPEG, teancoding of streams, recorder live monitoring and number /type of remote conncetions. Calculation tables are available for dimensioning network-based video surveillance systems. Please contact our support personnel for exact planning.